

In the Claims:

Please add the following new claims 63-88, as follows:

63. A spinal fusion implant, comprising:
an elongate bone portion having a generally rectangular cross-section and defining a longitudinal axis, said bone portion comprising:
an first bone engaging surface;
a second bone engaging surface; and
a first sidewall extending between said first and second bone engaging surfaces, wherein the first sidewall comprises a concave surface.
64. The implant of claim 63 wherein the concave surface is arcuate.
65. The implant of claim 63, wherein said bone portion is formed from a donor bone segment having at least a portion of a medullary canal and the concave surface defines a portion derived from the medullary canal.
66. The implant of claim 63 comprising a second sidewall having a convex portion.
67. The implant of claim 63 comprising a second sidewall having a substantially planar portion.
68. The implant of claim 63 comprising a second sidewall positioned to lie substantially parallel to the first sidewall.
69. The implant of claim 63 wherein the first bone engaging surface is substantially crescent shaped.

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70. The implant of claim 63, wherein at least one of the first and second bone engaging surfaces include ridges or teeth.

71. The implant of claim 63 wherein the first bone engaging surface and the second bone engaging surface are substantially planar.

72. The implant of claim 63 wherein the first bone engaging surface and the second bone engaging surface are separated by a first height adjacent to a first end and by a second height adjacent to an opposite, second end, wherein said first height is greater than the second height.

73. The implant of claim 63 wherein the first bone engaging surface and the second bone engaging surface are adapted to matingly conform to opposing endplates of adjacent vertebral bodies.

74. The implant of claim 63 wherein the first sidewall comprises a first substantially planar surface adjacent the first portion.

75. The implant of claim 63 wherein the first sidewall comprises a first substantially planar surface adjacent a first end and a second substantially planar surface adjacent a second end.

76. The implant of claim 63 comprising a first endwall positioned between the first and second bone engaging surfaces, wherein the first endwall is adapted to engage an implant holder.

77. The implant of claim 76 wherein the first endwall comprises a recess or a projection to engage an implant holder.

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78. The implant of claim 76 wherein the first endwall comprises a recess extending to the first portion.

79. The implant of claim 76 wherein the recess defines a bore extending substantially parallel to the longitudinal axis.

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80. The implant of claim 79 wherein the bore is threaded.

81. The implant of claim 76 wherein the recess defines a groove extending substantially parallel to the longitudinal axis.

82. A spinal fusion implant, comprising:
an elongate bone portion defining a longitudinal axis and comprising:
a first sidewall comprising a concave surface;
a second, opposite sidewall comprising a convex surface;
a first bone engaging surface positioned between the first and second sidewalls; and
a second bone engaging surface opposite the first bone engaging surface, wherein at least one of the first or second bone engaging surfaces comprises ridges or teeth.

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83. The implant of claim 82 comprising a tool attachment end positioned between the first and second bone engaging surfaces, said tool attachment end comprising a recess extending substantially parallel to the longitudinal axis from the tool attachment end to the convex surface.

84. A system for spinal fusion of adjacent vertebrae, said system comprising a pair of spinal implants, said spinal implants comprising an elongate bone portion having a generally rectangular cross-section; a first bone engaging surface; a second, opposite bone engaging surface; and a first sidewall extending between said first and second bone engaging surfaces, said first sidewall comprising a concave portion, said pair of implants are positioned in an intervertebral space whereby the concave portions define a chamber.

85. The system of claim 84 wherein the chamber comprises an osteogenic material.
86. The system of claim 84 wherein the implants do not contact each other.
87. The system of claim 84 wherein the implants are positioned to lie at an angle oblique to each other.
88. The system of claim 84 wherein each of the implants comprise a tool attachment end positioned posteriorly in the intervertebral space.

Please cancel claims 5-62, without prejudice.

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